

PRODUCT DESCRIPTION & FEATURES

Concealed-fix roofing, also referred to as secret fix, is designed for very low pitched roofs. Because clips under the sheet hold it down, the sheet is not punctured with fasteners, and remains completely watertight even at a very low slope. The securing clips are pre-fixed into the purlins and the sheet is mechanically snapped onto the clip.

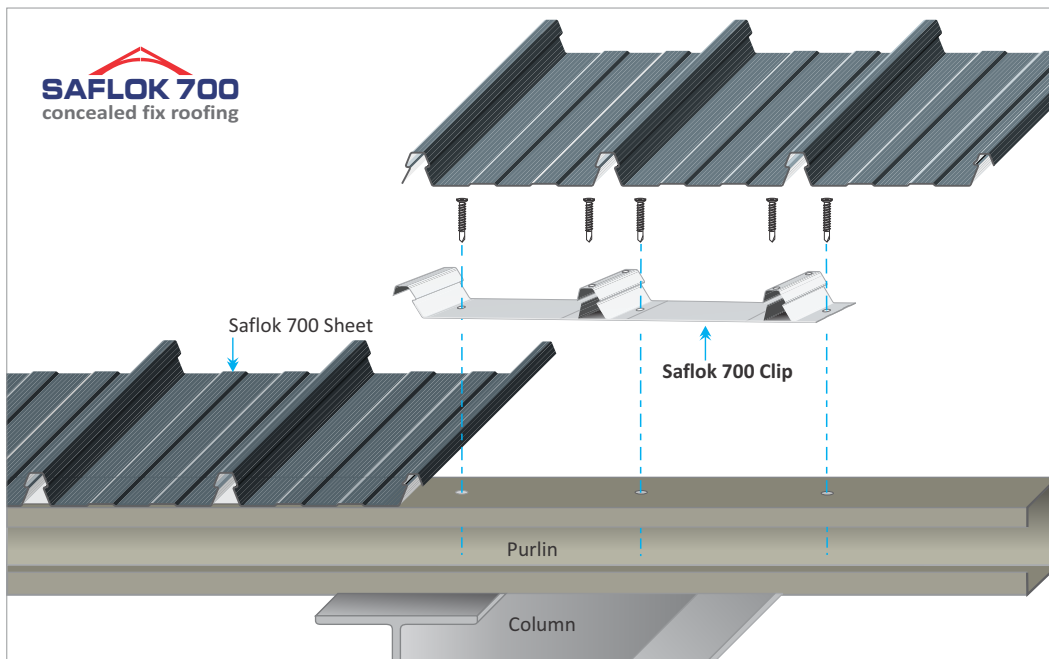
As a concealed fix sheet can also expand and contract over the clips as the temperature changes, this system is ideal for long spans on industrial, commercial and retail buildings.

The Saflok 700® concealed fix roofing system is an interlocking trapezoidal rib profile that can be rolled on site in lengths of up to 120 metres.

Saflok 700® may be rolled in Aluminium - Zinc coated steel, (bare or colour coated) or Aluminium (Mill Finish or G4 Colortech).

Saflok 700® can be curved or bullnosed to a minimum internal radius of 450mm - 500mm. Reverse cranking is not possible.

Further literature may be found at www.safintra.co.za.

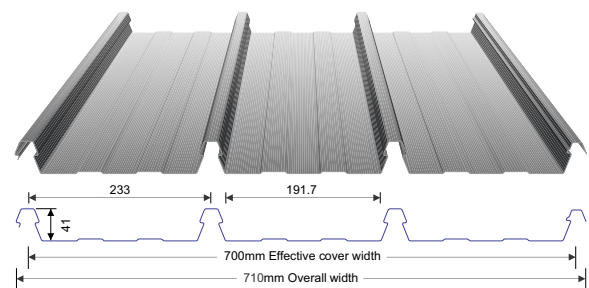


SAFLOK 700 CLIP



The fully interlocking SAFLOK 700 clip incorporates two anchors to clasp the two inner ribs and a dual action component to positively hold down the male-female joint.

1. Stiffener ribs on 0,8mm baseplate add formidable strength, specifically over the goose-neck
2. Full width engagement on the goose-neck male joint
3. 5 fastening points for stability, particularly over blanket insulation
4. Engineer-designed geometry of anchor unit for optimal performance under high wind loads and foot traffic
5. Entire clip is manufactured from Aluminium - Zinc coated steel for compatibility with sheeting



MATERIAL OPTIONS

| | |
|--------------------------|-------------------|
| Aluminium - Zinc | Gauge (mm) |
| AZ100/150/200 G550 | 0.50 0.55 |
| Unpainted or pre-painted | |
| Aluminium | Gauge (mm) |
| Aluminium Mill Finish | 0.80 |
| Aluminium G4 Colortech | 0.80 |
| Rheinzink | Gauge (mm) |
| Rheinzink Material | 0.80 |

Other gauges are available on special request.

SAMPLE SPECIFICATION

Safintra 0,50mm thick SAFLOK 700 Colorplus® AZ150 interlocking roof sheeting fixed to steel internal purlins at 2000mm, and ridge/eaves purlins at 1700mm centres using SAFLOK 700 clips which must be screw fixed to steel purlins with Fixtite® or Safintra approved wafer head self-tapping screws. The sheeting will be a double interlocking concealed fix SAFLOK 700 profile as manufactured by Safintra Roofing, roll formed in continuous lengths from certified G550 steel or aluminium 3004 H14. The profile shall be roll formed with 4 ribs and centres not exceeding 233mm and a cover width not exceeding 700mm. The male rib is to include spurs to ensure a double interlocking action with adjacent sheets. The minimum sheet depth will be 41mm. Two stiffening ribs are incorporated in each pan.

PURLIN SPACINGS

| GAUGE | 0.5mm | 0.55mm | 0.8mm |
|---------------------------------|----------------|----------------|-----------|
| MATERIAL | ALUMINIUM-ZINC | ALUMINIUM-ZINC | ALUMINIUM |
| ROOFS | mm | mm | mm |
| Single Span | 1 400 | 1 700 | 1 400 |
| End Span | 1 600 | 1 900 | 1 500 |
| Internal/Double Span | 1 800 | 2 100 | 2 000 |
| Cantilever (Unstiffened) | 150 | 150 | 180 |
| Cantilever (Stiffened) | 350 | 300 | 380 |
| SIDE CLADDING | | | |
| Single Span | 2 100 | 2 300 | 1 600 |
| End Span | 2 400 | 2 600 | 2 200 |
| Internal Span | 2 600 | 2 700 | 2 400 |
| Cantilever | 300 | 400 | 300 |
| Approximate Mass/m ² | 5.2kg | 6.2kg | 2.9kg |

Saflok 700 clips are calculated at 330g per clip - require approximately 1.5 clips per m².

Span tables are for SAFLOK 700 with light foot traffic only. Span tables are based on 1.5kN downward point load, and 1.6kPa upward pressure. The span tables are maximum recommended spans based on buildings up to 10m high for a basic design wind speed of 28m/s, Terrain Category C.

For further clarity on terrain categories, and wind speeds, please refer to the Safintra Design and Installation Manual (specifically pages 5,6 and 10,11).

Note 1:

It is important to reduce purlin spacings by 20% when spring curving a roof.



LENGTHS & ROOF PITCH

SAFLOK 700 can be ordered in any practical length as per customer requirements. On site rolling is recommended for lengths in excess of 13 metres. The minimum roof pitch when using SAFLOK 700 is 2° on steel and 3° on wood.

DRAINAGE TABLE

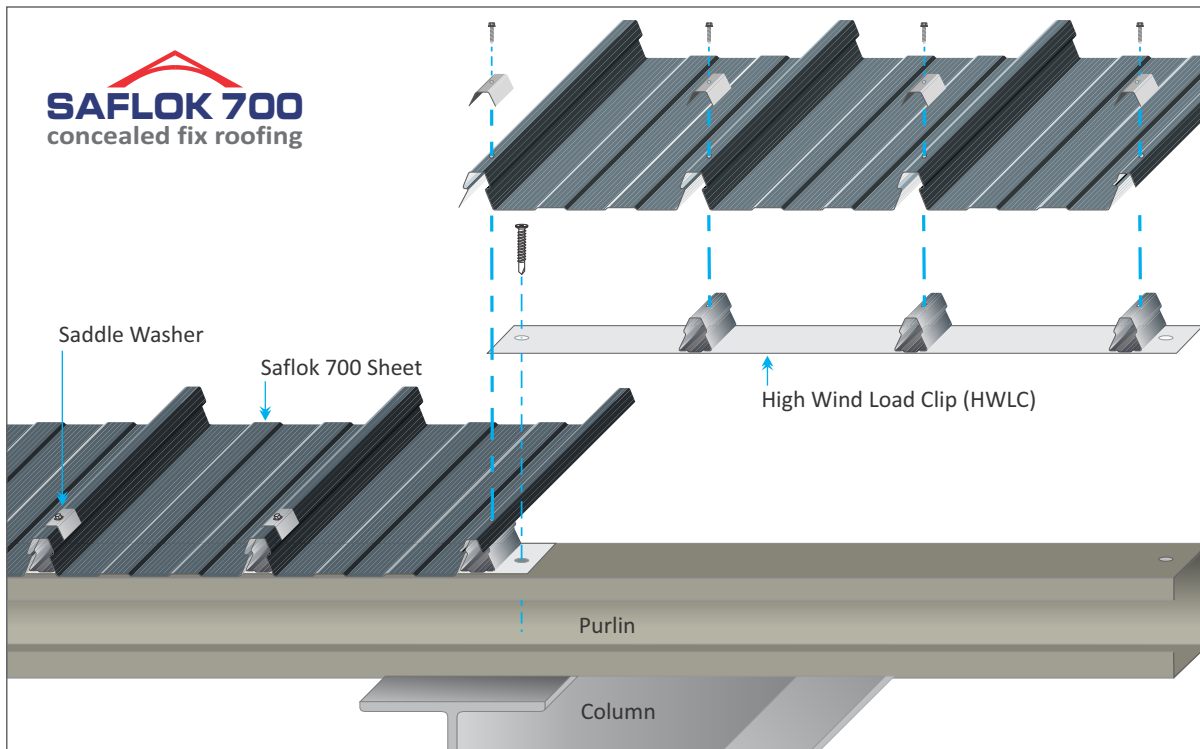
| DRAINAGE TABLE | ROOF SLOPE | | | | |
|----------------------------|------------|----|----|----|-----|
| RAINFALL INTENSITY MM/HOUR | 2° | 3° | 5° | 8° | 10° |
| 250 | 75 | 90 | | | |
| 300 | 65 | 75 | 95 | | |
| 400 | 50 | 55 | 70 | 80 | 90 |
| 500 | 40 | 45 | 55 | 65 | 70 |

Maximum roof run for roof slopes and rainfall intensities shown.



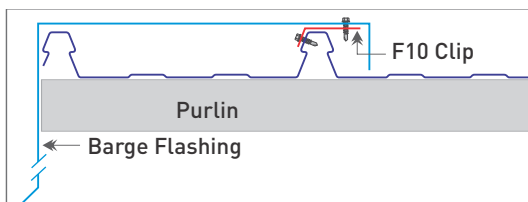
HIGH WIND LOAD INSTALLATION DETAILING (HIGH WIND ZONES AND COASTAL WIND BELTS)

The installation process for using the High Wind Load System (HWLS) is a pierced fix method. The High Wind Load System is recommended for terrain categories A & B, (For pdf reference on terrain categories, a document may be found at www.safintra.co.za). Note that the HWLS is not a concealed fix system, and is therefore recommended only for the perimeter and/or overhang areas of the building. Buildings taller than 10m would also require special design attention and the use of the HWLS.



- Step 1.** Starting with the female rib first, align first sheet and hold down.
 - Step 2.** Place saddle washers over the first 3 ribs above the purlins (starting from the female rib side). Align, and fasten the saddle washers through the rib using an appropriate Fixtite® or Safintra approved fastener.
 - Step 3.** Position the next sheet, engaging the female rib firmly over the male rib of the previous sheet. Repeat step 2.
- Note:** The bonded washer can only be fixed from the top.

F10 BRACKET FOR FLASHINGS



Note: this clip is positively fixed. Care should be taken when detailing industrial-length sheeting and flashing due to thermal expansion.

Safintra recommends the use of a Flashing Slider Clip for very long sheets. Please consult our Technical Department for assistance.

SPECIALISED FIXING ACCESSORIES

POLYSLIDER CLIP

For use with Saflok polycarbonate sheeting. Must be installed with saddle washer.

Polycarbonate sheets must be positively fixed - consult our technical department for advice.



FASTENERS

Where insulation is to be installed, you may need to increase the length of the fasteners given below, depending on the density and thickness of the insulation. When the fastener is properly tightened:

- into metal: there should be at least three threads protruding past the purlin you are fixing to, but the shankguard must not reach that purlin.
- into timber: the fastener must penetrate the timber by the same amount that the recommended fastener would do if there were no insulation.

CRANKING

SAFLOK 700 sheets may be cranked and bullnosed but not reverse bullnosed. Minimum radius is 450mm. On-site cranking is available on request.

CURVING

Natural springing occurs at 36m radius in the convex and 60m radius in the concave. It is important to reduce purlin spacings by 20% when spring curving a roof.

ROLLING STRAIGHT ONTO A ROOF

It is possible to rollform straight onto a roof using a scaffold ramp. The limitations are the building height and space needed to roll. A departure angle of 10° is the maximum allowed at any time. A greater angle would damage the sheet when leaving the mill and again when bending to settle onto the roof. The sheeting cannot be roll formed onto a building higher than 10m.

SEALED JOINTS

For sealed joints use fasteners or rivets and neutral-cure silicone sealant branded as suitable for use with AZ steel.



Note 2:

Note that when using Saflok Aluminium material on galvanized steel purlins, use of an isolation tape or similar to prevent the bridging of the two dissimilar materials is recommended. Should the two metals have direct contact it will ultimately result in the manifestation of galvanic corrosion, and the service life of the aluminium will be compromised.

Note 3:

During installation, clean the roof daily by removing all swarf, pop rivets and unused fasteners or any other debris.

Disclaimer:

- Care has been taken to ensure that the information provided is accurate. SAFINTRA does not assume responsibility for inaccuracies or misinterpretations of this data.
- SAFINTRA is continuously engaged in product development, please ensure that you have the most recent issue of information from SAFINTRA.
- Photographs and illustrations are typical examples of roofing and cladding products and applications.